ORIGINAL RESEARCH ORİJİNAL ARAŞTIRMA DOI: 10.5336/nurses.2025-110232

Determining the Relationship Between the Experience of Intensive Care Units Patients and Individualized Care: A Descriptive Research

Yoğun Bakım Hastalarının Deneyimi ve Bireyselleştirilmiş Bakım Arasındaki İlişkisinin Belirlenmesi: Tanımlayıcı Araştırma

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ABSTRACT Objective: The aim is to investigate the correlation between intensive care patients' experiences and individualized care. **Material and Methods:** Descriptive and correlational approach. Data were collected face to face at a university hospital between November-December 2022 (n=115). Data were collected using the Descriptive Characteristics Form, Intensive Care Experience Questionnaire, and Individualized Care Scale-Patient Version. Independent groups t-test, one way analysis of variance test, Tukey test and Pearson correlation analysis were used in the analysis. **Results:** The average age of the study group was 66.56 years, with a standard deviation of 12.02 years. Among the participants, 63.5% were male and 36.5% were female. The average total score of the Intensive Care Experience Questionnaire was 71.37±9.93, and the average total score of the Individualized Care Scale-Patient Version was 3.97±0.52. **Conclusion:** Both the intensive care experiences and the perception of individualized care by patients hospitalized in intensive care are above average. A moderate positive correlation exists between patients' intensive care experience and their perceptions of individualized care. It can be argued that providing individualized care by nurses has a positive impact on patients' experience in intensive care. It is essential to raise nurses' awareness of this issue, and it may be advisable to provide individualized care to patients in intensive care.

Keywords: Critical care; human experimentation; nursing care; patient care; holistic nursing

ÖZET Amaç: Yoğun bakım hastalarının deneyimleri ile bireyselleştirilmiş bakım arasındaki ilişkiyi araştırmaktır. **Gereç ve Yöntemler:** Tanımlayıcı ve ilişki arayıcı bir çalışmadır. Veriler, Kasım-Aralık 2022 tarihleri arasında bir üniversite hastanesinde toplandı (n=115). Veriler, Tanımlayıcı Özellikler Formu, Yoğun Bakım Deneyimi Anketi ve Bireyselleştirilmiş Bakım Ölçeği-Hasta Versiyonu kullanılarak toplandı. Analizde bağımsız gruplar t-testi, tek yönlü varyans analizi testi, Tukey testi ve Pearson korelasyon analizi kullanıldı. **Bulgular:** Çalışma grubunun yaş ortalaması 66,56 yıl olup, standart sapması 12,02 yıldır. Katılımcıların %63,5'i erkek, %36,5'i kadındır. Yoğun Bakım Deneyimi Anketi toplam puanının ortalaması 71,37±9,93, Bireyselleştirilmiş Bakım Ölçeği-Hasta Versiyonu toplam puanının ortalaması 3,97±0,52 olarak bulunmuştur. **Sonuç:** Yoğun bakımda yatan hastaların hem yoğun bakım deneyimleri hem de bireyselleştirilmiş bakım algıları ortalamanın üzerindedir. Hastaların yoğun bakım deneyimleri ile bireyselleştirilmiş bakım algıları arasında orta düzeyde pozitif bir korelasyon vardır. Hemşireler tarafından sağlanan bireyselleştirilmiş bakımın hastaların yoğun bakım deneyimi üzerinde olumlu bir etkisi olduğu söylenebilir. Hemşirelerin bu konudaki farkındalığının artırılması önemlidir ve yoğun bakımdaki hastalara bireyselleştirilmiş bakım sağlanması tavsiye edilebilir.

Anahtar Kelimeler: Yoğun bakım; insan deneyimi; hemşirelik bakımı; hasta bakımı; bütüncül hemşirelik

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Peer review under responsibility of Turkiye Klinikleri Journal of Nursing Sciences.

Received: 07 Mar 2025 ***Received in revised form:*** 14 May 2025 ***Accepted:*** 27 May 2025 ***Available online:*** 14 Aug 2025

Intensive care units (ICUs) are designed for patients who are in critical condition, experiencing organ failure, and in need of life-sustaining treatments.[1,2] ICUs are designed to identify conditions that cause dysfunction in organs or systems and, when necessary, to sustain their functions with appropriate treatment methods.[3] Patients may have varying experiences in this process, including positive and negative aspects.[1]

The experiences of patients in the ICU constitute the intensive care experience. This experience impacts patients' psychosocial and physical well-being and recovery during their stay in intensive care and afterward.[2,4] Patients' adherence to treatment decreases due to negative experiences, leading to prolonged hospitalization.[5] Furthermore, these negative experiences may adversely affect the individual's life through anxiety, depression, anger, feelings of powerlessness, sleep disturbances, stress, and mental distress.[6] These negative experiences make patients' needs for nursing care more personal and unique. Modern nursing practices move away from routine care and emphasize individualized care shaped according to the physical and psychosocial needs of the individual.[7]

Individualized care means providing care tailored to the specific needs of the patient, taking into account all aspects of their health, applying interventions appropriate to the patient, and involving the patient in decision-making about their care.[8] Individualized care is achieved when the nurse assesses the patient individually, takes into account the patient's clinical characteristics and personal life, and empowers patients to make their own care decisions.[9]

Various studies in the literature have shown that individualized care enhances the quality of care and patient satisfaction while reducing mortality and infections.[10-13] In a study conducted in an ICU, a negative relationship was found between person-centered care and ICU experience. The study also highlighted the psychological impact of the ICU experience on patients and the effectiveness of personalized care in reducing negative effects.[14] In the literature, there is no study examining the relationship between the intensive care experiences of patients in the ICU and their perceptions of individualized care. Filling this gap will both contribute to academic knowledge and strengthen practical applications. The findings of the study may be instructive for nurses to evaluate care practices and become more sensitive to the personal needs of patients. In order to increase the quality of nursing care services, the concept of individualized care should be disseminated. This study will provide clues on how to develop an individualized care approach based on patient experiences

Research Questions

Regarding the intensive care patient:

- What is the intensive care experience of patients hospitalized in the ICU, and what factors affect it?
- What is the perception of individualized patient care in the ICU and what are the factors affecting it?
- Is there a relationship between intensive care experiences and patients' perceptions of individualized care while hospitalized in intensive care?

MATERIAL AND METHODS

The present study is a descriptive and correlational study.

POPULATION AND SAMPLE

The study population consisted of patients hospitalized in the ICU of a university hospital between November-December 2022. The sample size of the study was calculated based on the study by Sarıgül and Kavurmacı, which reported that the mean intensive care experience score of patients hospitalized in coronary ICU was 54.47±5.25 for women and 58.57±6.64 for men.[15] Based on these data, the sample calculation using G*Power 3.1.9.4 software showed that at least 99 participants would be needed with an effect size of 0.676, a power of 0.95 and a margin of error of 0.05. The study was conducted with 115 participants.

Inclusion Criteria

Patients had no cognitive problems, had been in the ICU for at least 24 hours, were decided to be transferred from the ICU to the ward with an improved general condition, and were 18 years of age or older.

Exclusion Criteria

Patients have cognitive problems, psychological problems or neurological sequelae that prevent them from answering the questions correctly, are in the terminal period, and do not have sufficient command of Turkish to understand/answer the questions.

DATA COLLECTION TOOLS

The research data were collected using the "Descriptive Characteristics Form", "Intensive Care Experience Scale", and "Individualized Care Scale Patient Version".

Descriptive Characteristics Form

The descriptive characteristics form consists of 13 questions. It was developed based on the literature.[15-18] These questions included the patient's age, gender, marital status, educational status, employment status, income status, with whom the patient lived, number of chronic diseases, number of days in ICU, previous ICU experience, mechanical ventilator experience, sedation experience and visitor status. The developed form was applied to 10 patients, and its comprehensibility was tested. This data was not included in the study.

Intensive Care Experience Questionnaire

This scale developed to measure the experiences of patients hospitalized in the ICU was developed by Rattray et al.[19] The Turkish validity and reliability study was conducted by Demir et al.[20] Consisting of 19 questions, this scale is a 5-point Likert scale. It has 4 sub-dimensions. These are; awareness of surroundings, frightening experience, recall of experiences in intensive care, and satisfaction with care. Items are scored between 1-5. The minimum total score of the scale is 19 points and the maximum score is 95 points. A high score indicates a positive experience in intensive care. In the study conducted by Demir et al. Chronbach's alpha coefficient was found to be 0.79.[20] In our study, the Cronbach's alpha value was calculated as 0.78.

Individualized Care Scale-B

This scale was developed by Suhonen et al. to measure patients' perception of individualized care.[21] The scale has 3 subscales. These are clinical status, personal life situations and decision-making control. The Turkish validity and reliability study was conducted by Acaroglu et al.[22] It is a 17-item Likert-type scale and items are scored between 1-5. The total score of the scale is obtained by dividing by the number of items. The highest score that can be obtained from the scale is 5 and the lowest score is 1. A high score indicates a positive perception of individualized care. In the study conducted by Acaroglu et al.[22] Chronbach's alpha coefficient was found to be 0.93. In this study, Cronbach's alpha value was calculated as 0.90.

DATA COLLECTION PROCESS

Data were collected at a university hospital in Konya between November-December 2022. Among the patients who were hospitalized in the ICU for at least 24 hours, the questionnaires were administered to those who met the inclusion criteria just before leaving the ICU when the decision was made to send them to the ward or just after they were transferred to the inpatient ward. The questionnaire was completed face-to-face by the researcher. Data were collected in approximately 15 minutes.

LIMITATIONS

The limitation of the study is that data were collected from only one hospital and a limited number of ICUs due to the coronavirus disease-2019 pandemic. During the data collection process, the protective measures to be taken in clinical trials published by the ministry of health were followed.[23] The strengths of the research are the focus on patients' experiences in a critical setting such as intensive care, providing real and direct data from the field on quality of care.

DATA ANALYSIS

The data in this study were analyzed using SPSS 25 software. The descriptive statistics include numbers, ratios, mean, and standard deviation values. Minimum, maximum, mean, and standard deviation values were computed for continuous variables. Numbers, percentages, and mean values were calculated for categorical variables. The suitability of the data for normal distribution was determined based on the Skewness and Kurtosis values in the analyses. Subsequently, t-tests, one-way analysis of variance,

Mann-Whitney U test, and Kruskal-Wallis test were applied to independent groups. Moreover, Tukey's Honestly Significant Difference and Games-Howell analyses were conducted to determine the source of the differences in multiple comparisons. Numerical data were compared with "Pearson" and "Spearman" correlation analyses, no regression analysis was performed. The significance level for all analysis results was set at $p<0.05$.

ETHICAL ASPECTS OF THE STUDY

Research permission was obtained from the Necmettin Erbakan University's Health Sciences Scientific Research Ethics Committee (dated October 5, 2022, number 26), and approval was obtained from the research hospital. Informed consent forms were obtained from the participants. The Declaration of Helsinki was adhered to, and the study was reported in accordance with Strengthening the Reporting of Observational Studies in Epidemiology guidelines.

RESULTS

The mean age of the patients was 66.56±12.02 years. Of the patients, 63.5% were male, 80% were married, 60.0% had primary education, 55.7% were retired, 61.7% had expenses exceeding income, and 60.0% lived in nuclear families. Of the patients, 46.1% had 3 or more chronic diseases. The group that had the longest duration of stay in the ICU was hospitalized for 1-5 days (65.2%). Of the patients, 52.2% had previous experience in the ICU, 29.6% had mechanical ventilator experience and 7.0% had sedation experience. During their stay in the ICU, 74.8% of the patients had visitors (Table 1).

The average Intensive Care Experience Questionnaire (ICEQ) score of the patients was 71.37±9.93, and the average Individualized Care Scale-B (ICS-B) score was 3.97±0.52 (Table 2).

Among the demographic characteristics of the patients, it was observed that only gender had an impact on intensive care experiences (Female: 67.45±9.96, Male: 73.63±9.25) ($t=3,353$, $p=0.001$), whereas other characteristics did not ($p>0.05$). The average ICEQ scores of patients who spent 1-5 days

TABLE 1: Demographic characteristics of patients (n=115)

Variable	Category	n	%
Age	66.56±12.02 ($\bar{X}$±SD)		
Sex	Male	73	63.5
	Female	42	36.5
Marital status	Married	92	80
	Single	23	20
Education	Illiterate	24	20.9
	Primary school	69	60
	Secondary education	17	14.8
	University/graduate	5	4.3
Working status	Not working	42	36.5
	Retired	64	55.7
	Working	9	7.8
Income status	Income<expenditure	71	61.7
	Income=expenditure	33	28.7
	income>expenditure	11	9.6
Family living together	Nuclear families	69	60
	One of the family	31	27
	Alone	15	13
Chronic diseases	1	26	22.6
	2	36	31.3
	>3	53	46.1
Stay in the ICU	1-5 days	75	65.2
	6-10 days	29	25.2
	11 days and more	11	9.6
Previous ICU experience	Yes	60	52.2
	No	55	47.8
Mechanical ventilator experience	Yes	34	29.6
	No	81	70.4
Sedation experience	Yes	8	7
	No	107	93
Visitors	Yes	86	74.8
	No	29	25.2

SD: Standard deviation; ICU: Intensive care unit

TABLE 2: ICEQ and ICS-B score means of the patients (n=115)

Scales and sub-scales		$\bar{X}$	SD	Minimum- maximum
ICEQ	Awareness of surrounding	18.68	2.7	11-26
	Frightening experience	17.46	2.36	4-13
	Recall of experience	16.38	3.12	4-17
	Satisfaction with care	18.83	4.13	5-21
	ICEQ total score	71.37	9.93	26-73
ICS-B	Clinical situation	4.25	0.64	2.14-5.00
	Personal life situation	3.43	0.57	1.50-4.75
	Decisional control	4.00	0.51	2.50-5.00
	ICS-B total score	3.97	0.52	2.41-4.71

ICEQ: Intensive Care Experience Questionnaire; ICS-B: Individualized Care Scale-B; SD: Standard deviation

TABLE 3: Comparison of patients' demographic characteristics and ICEQ and its sub-dimensions (n=115)

Demographic characteristics		n	Awareness of surrounding X̄±SD	Frightening experience X̄±SD	Recall of experience X̄±SD	Satisfaction with care X̄±SD	ICEQ total score X̄±SD
Sex	Male	73	19.28±2.53	17.71±2.38	17.01±2.84	19.61±3.95	73.63±9.25
	Female	42	17.64±2.69	17.05±2.28	15.28±3.32	17.47±4.13	67.45±9.96
t value			3.278	1.462	2.950	2.749	3.353
p value			**0.001***	0.147	**0.004***	**0.007***	**0.001***
Age	18-64 years old	47	18.72±2.55	17.34±2.50	16.53±2.69	18.25±4.13	70.85±8.67
	65-74 years old	34	18.44±2.51	17.50±2.42	16.32±3.37	18.55±3.80	70.82±10.26
	75 years and above	34	18.88±3.11	17.61±2.15	16.23±3.49	19.91±4.35	72.64±11.34
t value			0.231	0.138	0.96	1.713	0.392
p value			0.794	0.871	0.909	0.185	0.676
Education	İlliterate	24	18.25±2.25	16.95±2.31	15.21±2.78	18.83±4.11	69.25±9.00
	Primary education	69	18.59±2.87	17.78±2.19	16.80±3.32	19.03±4.11	72.20±10.40
	Secondary education	17	19.41±2.58	16.70±2.91	16.29±2.49	18.12±4.30	70.53±9.20
	University/graduate	5	19.60±2.70	18.20±2.49	16.60±3.13	18.60±5.13	73.00±11.09
F			0.832	1.556	1.57	0.222	0.605
p			0.479	0.204	0.201	0.881	0.613
Marital Status	Married	92	18.79±2.76	17.55±2.39	16.52±3.22	16.52±3.22	71.84±10.30
	Single	23	18.26±2.47	17.13±2.24	15.83±2.67	15.83±2.67	69.52±8.22
t value			0.845	0.769	0.955	0.686	1.000
p value			0.400	0.443	0.342	0.494	0.320
Working Status	Not working	42	18.21±2.41	17.17±2.26	15.80±2.89	17.95±3.86	69.14±8.85
	Retired	64	18.91±2.92	17.59±2.44	16.80±3.33	19.27±4.21	72.56±10.73
	Working	9	19.33±2.18	18.00±2.29	16.11±2.42	19.89±4.54	73.33±7.53
F			1.115	0.658	1.310	1.614	1.714
p value			0.331	0.520	0.274	0.204	0.185
Income Status	Income<expenditure	71	18.49±2.74	17.38±2.26	15.90±3.19	18.38±3.98	70.15±9.92
	Income=expenditure	33	19.00±2.65	17.52±2.43	17.00±2.92	18.97±4.08	72.48±9.88
	Income>expenditure	11	19.00±2.76	17.91±2.95	17.64±2.84	21.36±4.70	75.91±9.26
F			0.475	0.245	2.431	2.574	1.918
p value			0.623	0.783	0.093	0.081	0.152
Family living together	Nuclear families	69	18.78±2.50	17.78±2.34	16.81±2.75	19.07±3.95	72.45±8.79
	One of the family	31	18.35±3.34	17.00±2.52	15.80±3.92	18.70±4.73	69.87±12.85
	Alone	15	18.93±2.15	17.00±2.00	15.60±2.77	18.00±3.78	69.53±7.74
F			0.336	1.532	1.667	0.430	1.017
p value			0.715	0.221	0.193	0.652	0.365

*p<0.0; 5**"post hoc" multiple comparisons; t: Independent groups t-test ; F: One way analysis of variance test. ICEQ:Intensive Care Experience Questionnaire; SD: Standard deviation

TABLE 3: Comparison of patients' demographic characteristics and ICEQ and its sub-dimensions (n=115) *(contunied)*

Demographic characteristics		n	Awareness of surrounding X̄±SD	Frightening experience X̄±SD	Recall of experience X̄±SD	Satisfaction with care X̄±SD	ICEQ total score X̄±SD
Chronic diseases	1[a]	26	18.58±2.00	17.35±2.74	16.69±2.69	18.69±4.24	71.30±9.24
	2[b]	36	19.14±3.16	16.75±2.38	15.36±3.63	18.39±4.70	69.64±12.10
	>3[c]	53	18.43±2.66	18.02±2.02	16.92±2.83	19.21±3.69	72.58±8.55
F			0.756	3.271	2.945	0.436	0.943
p value			0.472	**0.042*(c>b)****	0.057	0.648	0.393
Stay in the ICU	1-5 days[a]	75	18.80±2.79	17.81±2.28	16.81±2.99	19.59±3.90	73.01±9.45
	6-10[th] days[b]	29	18.21±2.24	16.55±2.38	15.86±2.88	17.38±4.35	68.00±9.63
	11 days and more[c]	11	19.18±3.22	17.55±2.38	14.82±4.12	17.55±4.16	69.09±12.05
F			0.705	3.107	2.562	3.746	3.095
p value			0.496	**0.049**(a>b)****	0.82	**0.027**(a>b)****	**0.049*(a>b)****
Previous ICU experience	Yes	60	18.77±2.62	17.55±2.23	16.17±3.05	18.28±4.08	70.77±9.57
	No	55	18.60±2.81	17.38±2.51	16.62±3.321	19.43±4.14	72.04±10.36
t value			0.329	0.380	-0.773	-1.502	-0.683
p value			0.742	0.704	0.441	0.136	0.496
Mechanical ventilator experience	Yes	34	18.29±2.79	16.50±2.45	14.91±3.56	16.56±4.05	66.26±11.14
	No	81	18.85±2.66	17.88±2.21	17.00±2.71	19.79±3.80	73.51±8.58
t value			-1.011	-2.95	-3.42	-4.079	-3.776
p value			0.314	0.004	**0.001**	**0.001**	**0.001**
Sedation experience	Yes	8	18.13±2.53	16.25±2.96	13.63±4.14	17.25±4.83	65.25±12.27
	No	107	18.73±2.72	17.56±2.30	16.59±2.96	18.95±4.08	71.83±9.65
t value			-0.609	-1.524	-2.655	-1.126	-1.826
p value			0.544	0.13	**0.009***	0.263	0.070
Visitors	Yes	86	18.64±2.77	17.78±2.16	16.64±3.01	19.02±4.14	72.08±9.53
	No	29	18.83±2.52	16.55±2.72	15.62±3.37	18.28±4.14	69.28±10.95
t value			-0.323	2.476	1.527	0.841	1.320
p value			0.747	**0.015**	0.129	0.402	0.190

*p<0.05; ** "post hoc" multiple comparisons; t: Independent groups t-test; F: One way analysis of variance test. ICEQ: Intensive Care Experience Questionnaire; SD: Standard deviation; ICU: Intensive Care Unit

TABLE 4: Comparison of patients' demographic characteristics and ICS-B and its sub-dimensions (n=115)

			Clinical situation	Personal life situation	Decisional control	ICS-B total score
Demographic characteristics			n	X̄±SD	X̄±SD	X̄±SD X̄±SD
Sex	Male	73	4.21±0.58	3.43±0.55	3.97±0.48	3.95±0.48
	Female	42	4.31±0.73	3.43±0.63	4.05±0.57	4.00±0.59
t value			-0.747	0.057	-0.754	-0.620
p value			0.456	0.955	0.452	0.536
Age	18-64 years old	47	4.30±0.66	3.43±0.52	4.02±0.55	4.00±0.53
	65-74 years old	34	4.18±0.68	3.45±0.60	4.00±0.51	3.95±0.54
	75 years and above	34	4.24±0.58	3.42±0.63	3.97±0.48	3.95±0.52
F			0.329	0.022	0.095	0.122
p value			0.721	0.978	0.909	0.886
Education	Illiterate	24	4.20±0.72	3.38±0.69	4.01±0.56	3.94±0.63
	Primary education	69	4.32±0.59	3.44±0.57	4.03±0.48	4.01±0.50
	Secondary education	17	4.00±0.70	3.41±0.41	3.79±0.58	3.79±0.51
	University/graduate	5	4.29±0.61	3.65±0.45	4.17±0.37	4.09±0.41
F			1.155	0.330	1.203	0.921
p value			0.330	0.804	0.312	0.433
Marital status	Married	92	4.21±0.65	3.42±0.61	3.98±0.53	3.94±0.55
	Single	23	4.41±0.58	3.48±0.39	4.06±0.44	4.06±0.43
t value			-1.368	-0.426	-0.681	-1.030
p value			0.174	0.671	0.497	0.305
Working status	Not working	42	4.23±0.78	3.47±0.50	4.04±0.55	3.98±0.58
	Retired	64	4.24±0.57	3.39±0.63	3.95±0.50	3.94±0.51
	Working	9	4.37±0.42	3.59±0.45	4.20±0.44	4.12±0.37
F			0.166	0.605	1.146	0.526
p value			0.847	0.548	0.322	0.592
Income status	Income<expenditure[a]	71	4.14±0.71	3.35±0.62	3.99±0.55	3.90±0.59
	Income=expenditure[b]	33	4.39±0.48	3.49±0.48	3.95±0.46	4.02±0.40
	Income>expenditure[c]	11	4.56±0.35	4.20±0.44	4.20±0.44	4.25±0.27
F			3.290	2.924	0.979	2.354
p value			**0.04 (c>a)****	0.06	0.379	0.100
Family living together	Nuclear families[a]	69	4.26±0.62	3.46±0.54	4.00±0.52	3.98±0.51
	One of the family[b]	31	4.17±0.72	3.39±0.66	3.96±0.56	3.91±0.60
	Alone[c]	15	4.37±0.56	3.38±0.56	4.03±0.37	4.02±0.45
F			0.536	0.253	0.126	0.281
p value			0.587	0.777	0.882	0.756
Chronic diseases	1	26	4.43±0.59	3.46±0.51	4.00±0.58	4.05±0.50
	2	36	4.05±0.71	3.26±0.66	3.84±0.58	3.80±0.60
	>3	53	4.29±0.58	3.53±0.52	4.11±0.40	4.05±0.46
F			3.001	2.479	2.949	3.047
p value			0.054	0.088	0.056	0.051
Stay in the ICU	1-5 days	75	4.32±0.61	3.47±0.55	4.04±0.51	4.02±0.50
	6-10th days	29	4.02±0.71	3.33±0.60	3.89±0.56	3.81±0.57
	11 days and more	11	4.32±0.55	3.45±0.63	4.02±0.42	4.01±0.51
F			2.402	0.653	0.988	1.759
p value			0.095	0.522	0.375	0.177
Previous ICU experience	Yes	60	4.27±0.63	3.48±0.43	4.03±0.45	4.00±0.46
	No	55	4.22±0.66	3.38±0.69	3.97±0.58	3.93±0.59
t value			0.464	0.974	0.605	0.696
p value			0.644	0.333	0.546	0.488
Mechanical ventilator	Yes	34	3.99±0.81	3.31±0.67	3.83±0.59	3.77±0.65
experience	No	81	4.36±0.52	3.48±0.52	4.07±0.46	4.05±0.44
t value			-2.447	-1.360	-2.088	-2.269
p value			**0.018**	0.180	**0.042**	**0.028**
Sedation experience	Yes	8	4.21±0.96	3.63±0.73	3.96±0.51	3.99±0.72
	No	107	4.62±0.25	3.42±0.58	4.00±0.51	3.97±0.51
t value			2.012	0.655	1.060	2.207
p value			0.159	0.326	0.813	0.925
Visitors	Yes	86	4.31±0.64	3.50±0.50	4.04±0.48	4.02±0.51
	No	29	4.07±0.626	3.22±0.71	3.88±0.59	3.80±0.587
t value			0.089	4.243	1.052	0.980
p value			0.083	**0.023***	0.143	0.050

*p<0,05; *p<0.05; ** "post hoc" multiple comparisons; t: Independent groups t test; F: One way analysis of variance test. ICS-B: Individualized Care Scale-B; SD: Standard deviation; ICU: Intensive Care Unit

in the ICU (73.01±9.45) (F=3,095, p=0,049) and patients who did not require mechanical ventilation (73.51±8.58) (t=-3,776, p=0,001) were higher than those of other patients. The scores for negative experiences of patients with more than 3 chronic diseases (18.02±2.02) (F=3,271, p=0,042) were higher, and patients who did not receive sedation had higher scores in recalling their experiences. The difference is statistically significant (Table 3).

The ICS-B clinical status subscale score was higher in the group in which income exceeded expenditure (4.56±0.35). ICS-B total score was higher in the group not using a mechanical ventilator (4.05±0.44) and ICS-B personal life status score was higher in the group with visitors (3.50±0.50). These differences were found to be significant ($p<0.05$). When the ICS-B total score was compared in terms of gender, age groups, education level, marital status, employment status, family member living with, number of chronic diseases, length of stay in intensive care, previous intensive care experience and sedation experience, no statistical difference was found ($p>0.05$) (Table 4).

The relationship between the ICEQ total score and the ICS-B total score is moderately positive (r=0.669, p=0.001). The relationships between the total scores on the scale and all sub-dimensions are detailed (Table 5).

DISCUSSION

In this study, the relationship between the experiences of patients hospitalised in the ICU and the individualized care they perceive was examined and discussed based on the literature. Gender influences patients' intensive care experiences. Male patients were found to have more positive experiences in the ICU. A review of the literature revealed that male patients had higher mean scores in the total score and some sub-scales of intensive care experiences.[15,24,25] It is thought that this may be due to the fact that men's ways of expressing their emotions differ under the influence of gender roles.

It was found that a prolonged stay in intensive care had a negative impact on patients' experiences in intensive care. The conditions in the ICU, such as patient isolation from their families, inadequate privacy protection, attachment of complex medical devices, artificial lighting, device noise, disruption of day-night cycles, mechanical ventilator use, exposure to painful procedures, lack of information about procedures, and witnessing procedures on other patients, negatively affect patients.[4,26,27] All of these factors contribute to stress, and an extended stay in the ICU as a result of these stressors negatively affects the overall ICU experience.[24] A study reported that patients who were hospitalized the intensive care for more than 5 days had negative experiences.[25,28] An-

TABLE 5: The relationship between ICEQ and its sub-dimensions and ICS-B and its sub-dimensions (n=115)

ICEQ and subdimensions			ICS-B and sub-dimensions			
			CS-B total score	Clinical situation	Personel life situation	Decisional control
	ICEQ total score	r value	0.669**	0.591**	0.596**	0.637**
		p value	**0.001 *** **	**0.001*** **	**0.001*** **	**0.001*** **
	Awareness of surrounding	r value	0.218*	0.173	0.229*	0.210*
		p value	**0.019*** **	0.065	**0.014*** **	**0.024*** **
	Frightening experience	r value	0.681**	0.607**	0.552**	0.679**
		p value	**0.001*** **	**0.001*** **	**0.001*** **	**0.001*** **
	Recall of experience	r value	0.576**	0.522**	0.527**	0.518**
		p value	**0.001*** **	**0.001*** **	**0.001*** **	**0.001*** **
	Satisfaction with care	r value	0.641**	0.565**	0.569**	0.614**
		p value	**0.001*** **	**0.001*** **	**0.001*** **	**0.001*** **

**Correlation is significant at the 0.01 level (2-tailed); ***p<0.05; *Correlation is significant at the 0.05 level (2-tailed). Pearson correlation analysis.
ICS-B: Individualized Care Scale-B; ICEQ: Intensive Care Experience Questionnaire

other study found that patients hospitalized for more than 20 days also had negative experiences in intensive care.[29] It can be concluded that an extended stay in intensive care may expose patients to more negative factors, which, in turn, negatively affects their overall intensive care experience. Therefore, individualized, continuous and comprehensive care should be provided for the physical, psychological and social needs of patients.

It was determined that another factor affecting the ICU experience was the utilization of mechanical ventilators. In the study by Palaz et al. it was reported that patients who were treated with mechanical ventilators had more negative experiences.[30] Several studies also suggest that mechanical ventilation may contribute to negative experiences, or that there is no relationship between mechanical ventilator use and the intensive care experience.[4,17,25-27,31] However, mechanically ventilated patients experience uncomfortable symptoms such as pain, thirst and shortness of breath.[32,33] This can be challenging for patients and cause negative experiences. Nurses should establish ways of communication with their patients, make arrangements to reduce anxiety, reduce pain and prioritize comfort, recognize individual needs and provide guidance.

The use of sedation also impacts the intensive care experience. In a study conducted in Malaysia, it was reported that patients in ICUs had limited environmental awareness because of sedation use and the impact of other variables, leading to an inability to recall their experiences.[2] In another study conducted in Jordan, the use of sedation showed a significant negative correlation (weak) with environmental awareness, while recall of pessimistic experiences exhibited a significant positive correlation (weak). Additionally, recall of experiences demonstrated a significant negative correlation (weak), which aligns with the findings of our study.[17] In the present study, similarly, the recall score of experiences for patients without sedation was higher. Sedation in the ICU prolongs the patient's length of stay in the ICU, requires a mechanical ventilator, and exposes the patient to negative stimuli for a prolonged period. Therefore, it can be concluded that it has a negative impact on their intensive care experiences.

It was found that patients on mechanical ventilators had a worse perception of individualized care. Factors such as the patient's reliance on another person and lack of awareness of nursing care can negatively affect the perception of individualized care.[12,34-36] A patient on a mechanical ventilator relies on others for care and may not be fully aware of the treatment they receive. Therefore, patients using mechanical ventilators may have a low perception of the individualized care provided. It is possible to conclude that a patient's experiences in intensive care affect the perception of individualized care.

CONCLUSION

It was found that both the intensive care experiences and the patients' individualized care perception were rated above the moderate level and were positive. Gender, number of chronic diseases, length of stay in the ICU, sedation, and mechanical ventilator use affect the ICEQ score. ICS-B score is affected by income, compliance with mechanical ventilation, and the presence of visitors. It was found that there was a positive relationship between the experiences of patients hospitalised in intensive care and the individualized care they perceived. Nurses can be advised to maintain communication with the patient, reduce environmental stressors, perform pain assessment, provide emotional support to patients, support family involvement, promote comfort, intervene to reduce fear and anxiety, and encourage patient participation in making decisions about care.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Ahmet Topcu, Rukiye Burucu;* ***Design:*** *Ahmet Topcu, Rukiye Burucu;* ***Control/Supervision:*** *Rukiye Burucu;* ***Data Collection and/or Processing:*** *Ahmet Topcu, Rukiye Burucu;* ***Analysis and/or Interpretation:*** *Ahmet Topcu, Rukiye Burucu;* ***Literature Review:*** *Ahmet Topcu;* ***Writing the Article:*** *Ahmet Topcu;* ***Critical Review:*** *Rukiye Burucu;* ***References and Fundings:*** *Ahmet Topcu, Rukiye Burucu;* ***Materials:*** *Ahmet Topcu, Rukiye Burucu.*

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